Part I: Quantitative Date Analysis

1. **Each of the 20 cities has been categorized in terms of type of government and city size. Are large cities more likely to have the mayoral form of government?**

   Yes. 7/10 or 70% of large cities surveyed have a mayoral form of government versus small cities that only have a mayoral form of government in 3/10 or 30% of the cities surveyed.

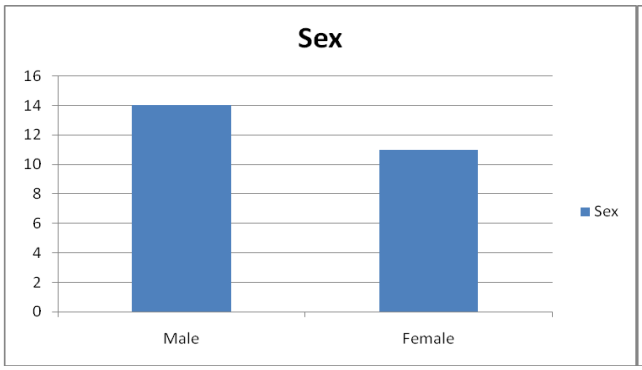
City	Type of Government	City Size
C	City Manager	Large
H	City Manager	Large
O	City Manager	Large
A	Mayoral	Large
D	Mayoral	Large
F	Mayoral	Large
I	Mayoral	Large
M	Mayoral	Large
P	Mayoral	Large
R	Mayoral	Large
G	City Manager	Small
J	City Manager	Small
K	City Manager	Small
N	City Manager	Small
Q	City Manager	Small
S	City Manager	Small
T	City Manager	Small
B	Mayoral	Small
E	Mayoral	Small
L	Mayoral	Small

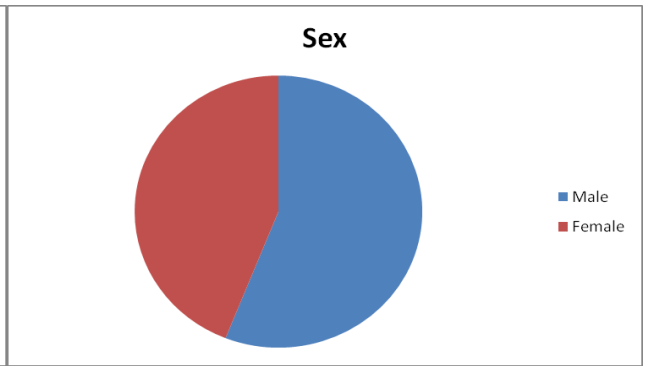
2. **The scores of 25 respondents on three variables are reported below. These scores were taken from a public opinion survey called the General Social Survey, or the GSS. The numerical codes for these three variables are as follows:**

   a. **Sex: 1=Male, 2=Female**
   b. **Support for Gun Control (item 25): 1= in favor, 2= opposed**
   c. **Education (item 9): 0= less than HS, 1= HS, 2=Jr. College, 3=Bachelor's, 4=Graduate**

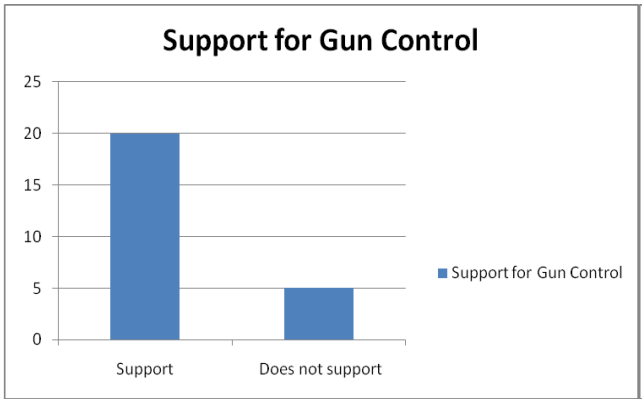
d. Construct a frequency distribution for each of the three variables. Include a column for percentages.

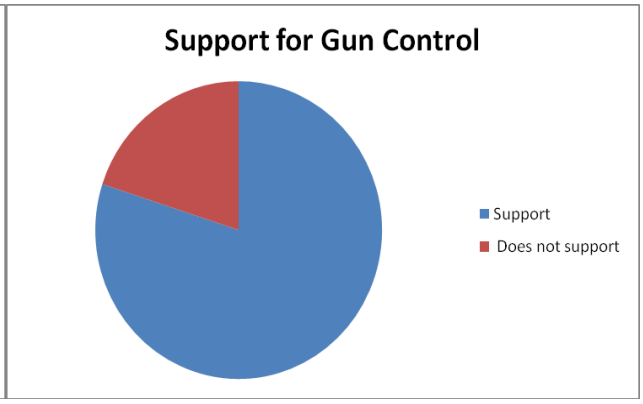
Gender	Number	Frequency	Cumulative %
Male	14	56%	56%
Female	11	44%	100%
Total	25	100%	100%



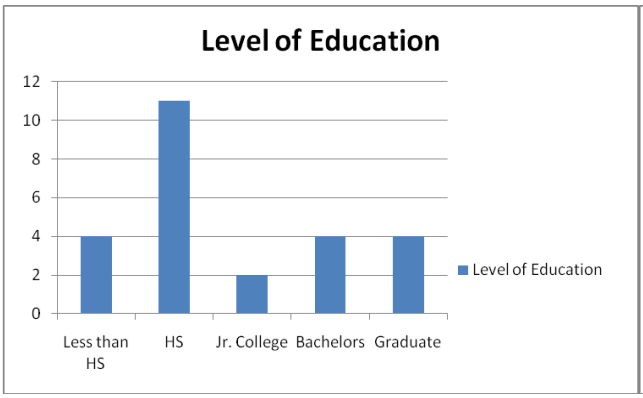


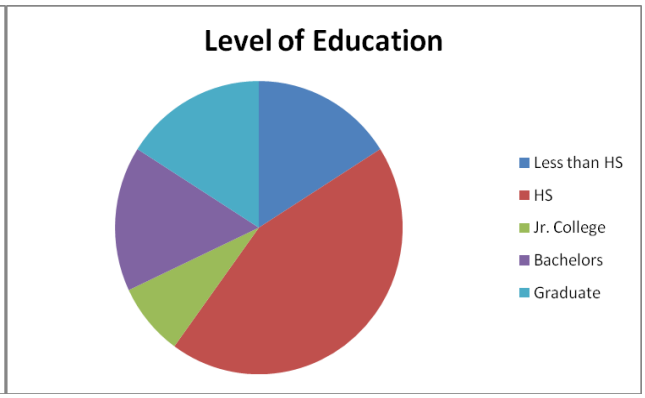
For Gun Control	Number	Frequency	Cumulative %
For Gun Control	20	80%	80%
Against Gun Control	5	20%	100%
Total	25	100%	100%





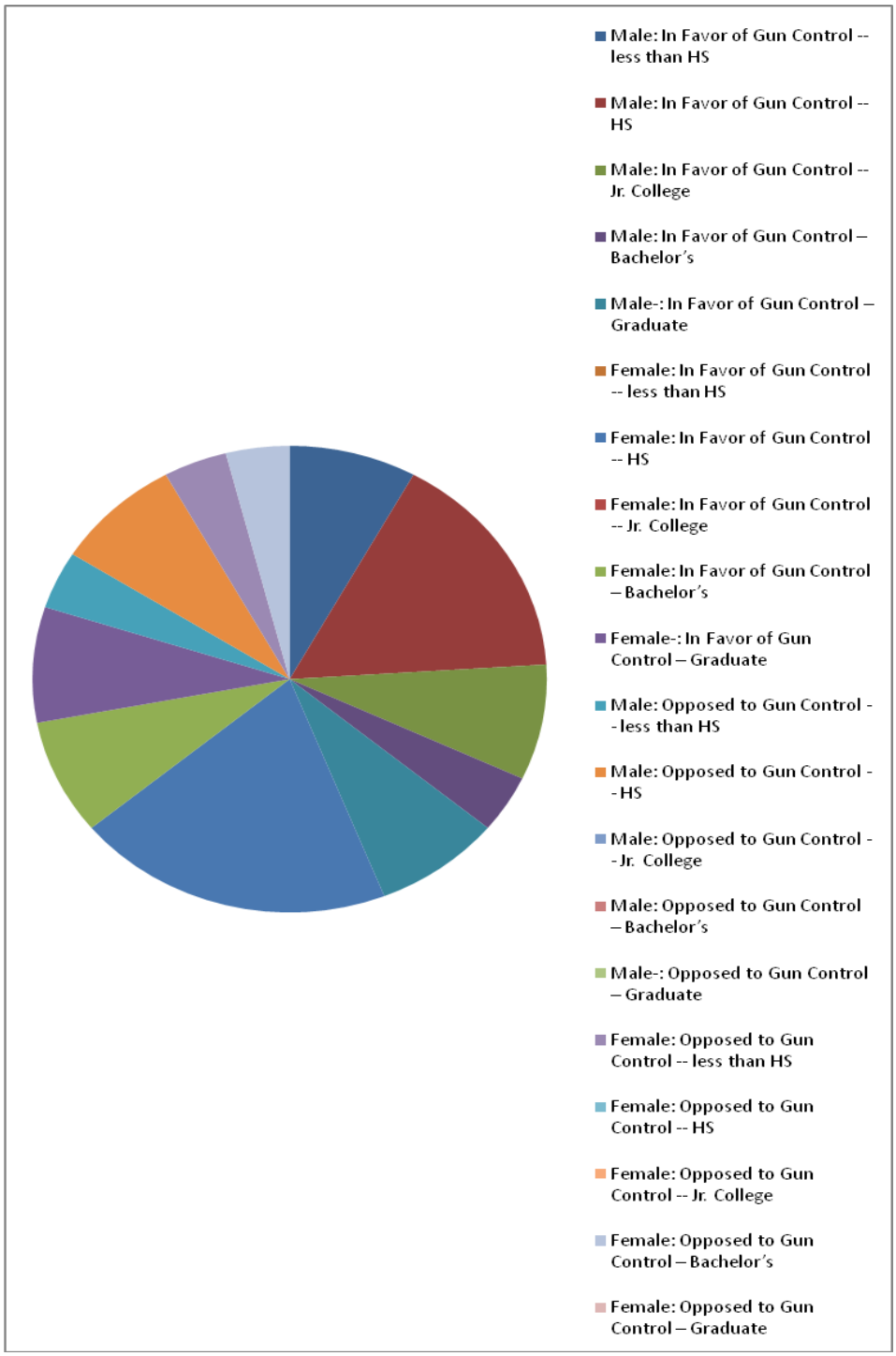
For Gun Control	Number	Frequency	Cumulative %
Less than HS	4	16%	16%
HS	11	44%	60%
Jr. College	2	8%	68%
Bachelors	4	16%	84%
Graduate	4	16%	100%
Total	25	100%	100%

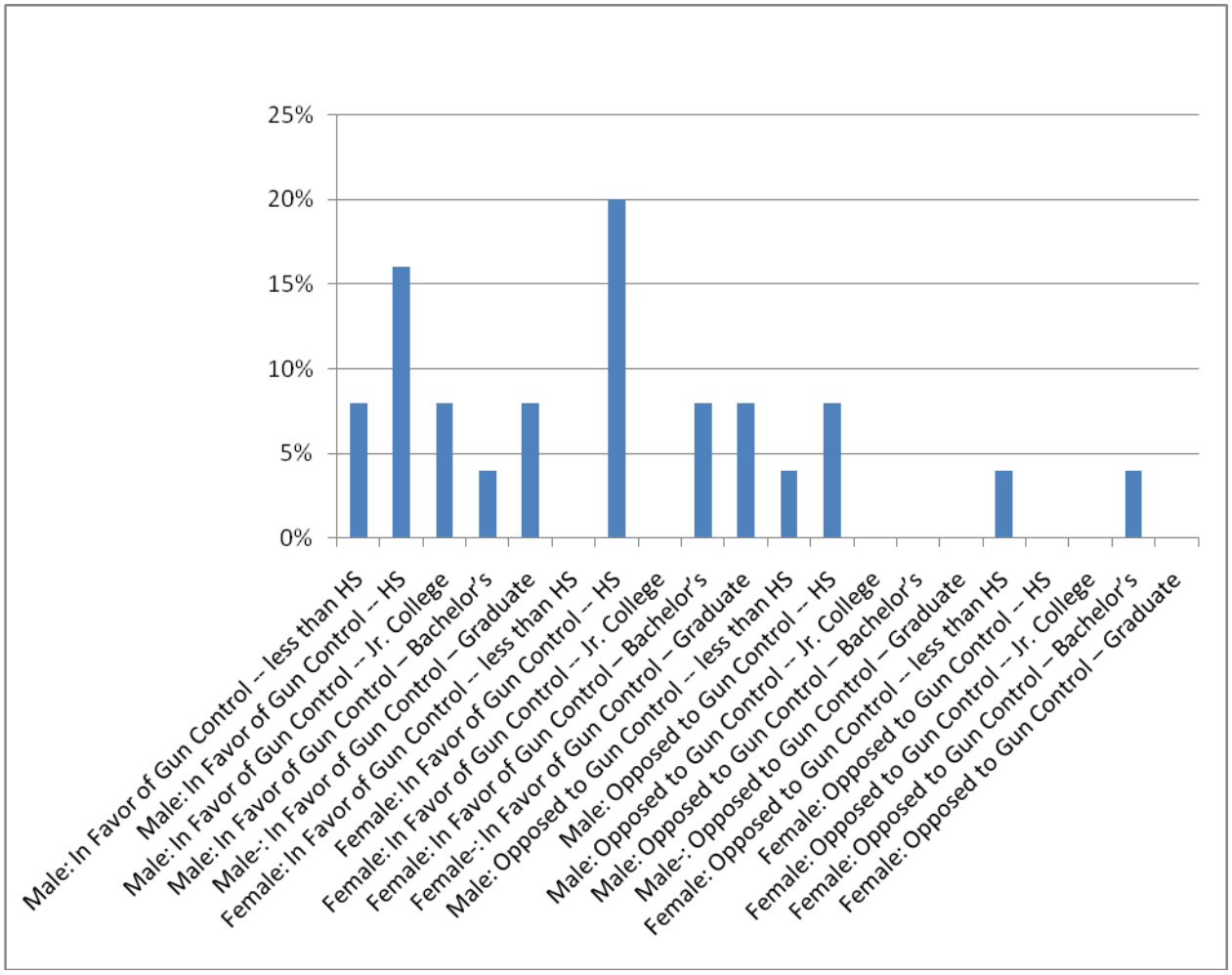




Category	**Frequency**	**Percent**
Male: In Favor of Gun Control -- less than HS	2/25	8%
Male: In Favor of Gun Control -- HS	4/25	16%
Male: In Favor of Gun Control -- Jr. College	2/25	8%
Male: In Favor of Gun Control – Bachelor's	1/25	4%
Male-: In Favor of Gun Control – Graduate	2/25	8%
Female: In Favor of Gun Control -- less than HS	0/25	0%
Female: In Favor of Gun Control -- HS	5/25	20%
Female: In Favor of Gun Control -- Jr. College	0/25	0%
Female: In Favor of Gun Control – Bachelor's	2/25	8%
Female-: In Favor of Gun Control – Graduate	2/25	8%
Male: Opposed to Gun Control -- less than HS	1/25	4%
Male: Opposed to Gun Control -- HS	2/25	8%
Male: Opposed to Gun Control -- Jr. College	0/25	0%
Male: Opposed to Gun Control – Bachelor's	0/25	0%
Male-: Opposed to Gun Control – Graduate	0/25	0%
Female: Opposed to Gun Control -- less than HS	1/25	4%
Female: Opposed to Gun Control -- HS	0/25	0%
Female: Opposed to Gun Control -- Jr. College	0/25	0%
Female: Opposed to Gun Control – Bachelor's	1/25	4%
Female: Opposed to Gun Control – Graduate	0/25	0%

e. Construct pie and bar charts to display the distributions of the three variables.





3. **The data represent the percentage of all workers in each city who use public transportation to commute to work.**

   a. **Calculate the mean and the median of this distribution.**

      The mean of workers using public transportation is 22.7%.
      The median of workers using public transportation is 19.0% to 19.2%.

   b. **Compare the mean and median. Which is the higher value? Why?**

      The mean is higher because New York skews the average because the number of workers using public transportation is 22.5% higher than the next highest city.

c. If you removed New York from this distribution and recalculated, what would happen to the mean? To the median? Why?

The mean of workers using public transportation would be 20.9. The mean is higher because New York skews the average because the number of workers using public transportation is 22.5% higher than the next highest city. The median would be 19%, which isn't much of a change since we're only removing one city from the calculation.

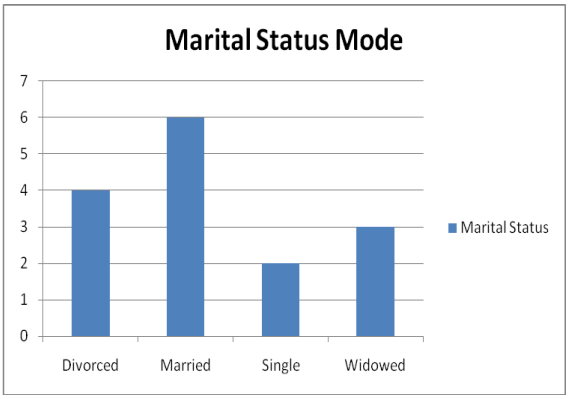
d. Report the mean and median as you would in a formal research report.

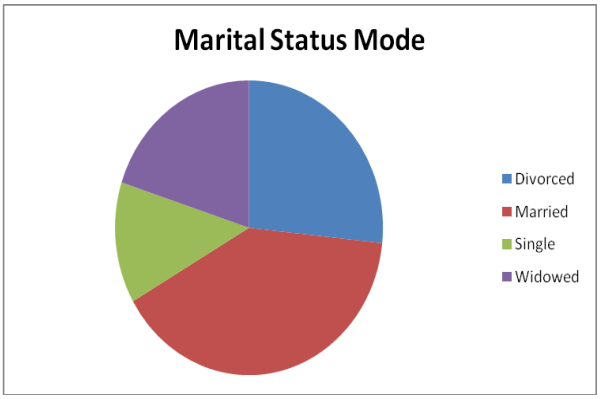
Workers Using Public Transportation	**Full Sample Set**	**Sample Set Minus New York City**
Mean	**22.7%.**	**20.9**
Medium	**19.0% to 19.2%.**	**19%,**

4. For 15 respondents, data have been gathered on four variables. Find and report the appropriate measure of central tendency for each of the four variables.

Since Marital Status is nominal data, mode is the most effective measure of central tendency

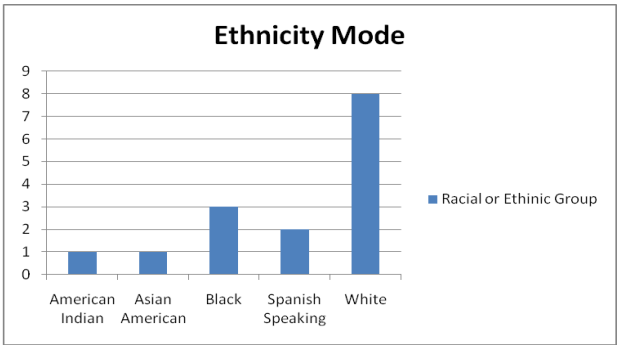
Marital Status	**Mode**.	**Percentage**	**Cumulative %**
Single	**2**	**13.3%**	**13.3%**
Divorced	**4**	**26.7%**	**40%**
Widowed	**3**	**20%**	**60%**
Married	**6**	**40%**	**100%**
Total	**15**	**100%**	**100%**

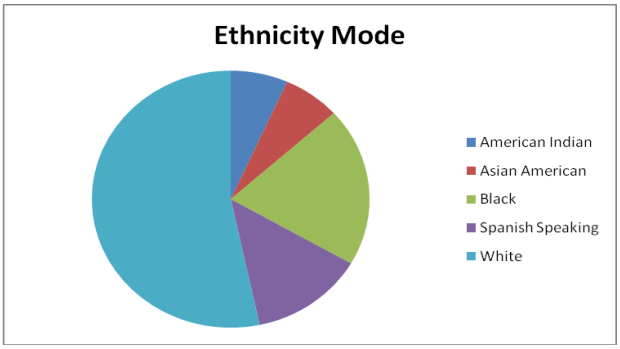




Since Ethnicity is also nominal data, mode is the most effective measure of central tendency

Ethnicity	Mode	Percentage	Cumulative %
American Indian	**1**	**6.7%**	**6.7%**
Asian American	**1**	**6.7%**	**13.4%**
White	**8**	**53.3%**	**67.7%**
Black	**3**	**20%**	**87.7%**
Spanish-speaking	**2**	**13.3%**	**100%**
Total	**15**	**100%**	**100%**





Since both Age and Attitude on Abortion are interval data, mean, median, and mode are useful in their analysis.

Age	
Mean	**27.53**
Median	**26**
Mode	**32**

Attitude on Abortion	
Mean	**6.7**
Median	**7**
Mode	**10**

5. **See here-attached spreadsheet file for the rates of abortion per 100,000 women for 20 states in 1973 and 1975. Describe what happened to these distributions over the two-year period. Did the average rate increase or decrease? What happened to the dispersion of this distribution?**

   The average rate of abortions per 100,000 women for 20 states increased from 1973 to 1975 in every state except New York, which showed a decrease. The dispersion range shrunk by 13.2% as the highest average (New York) decreased by 12.8% and the lowest average (Mississippi) increased by 0.4%.

Part II: Qualitative Data Analysis

1. **Identify major codes, categories, and themes in interview transcript at http://www.npr.org/templates/story/story.php?storyId=93041368.**

2. **Define each theme and list all associated categories with each individual theme.**

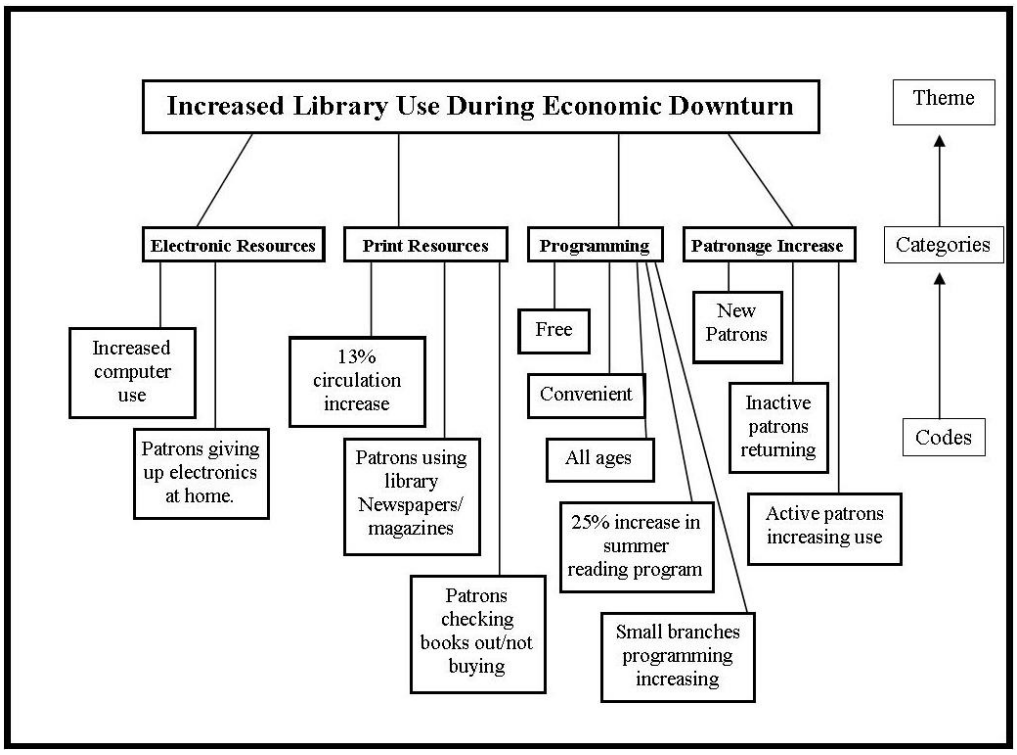
Theme: Increased Library Use During Economic Downturn

Categories --

1. Electronic Resources
2. Print Resources
3. Programming
4. Patronage Increase

Codes --

1. Increased computer use
2. Patrons giving up electronics at home
3. 13% circulation increase
4. Patrons using library newspapers/magazines
5. Patrons checking books out/not buying
6. Free
7. Convenient
8. All ages
9. 25% increase in summer reading program
10. Small branches programming increasing
11. New Patrons
12. Inactive patrons returning
13. Active patrons increasing use



Increased Library Use During Economic Downturn

ILUDED: Electronic Resources
*Increased computer use
*Patrons giving up electronics at home

ILUDED: Print Resources
*13% circulation increase
* Patrons using library newspapers/magazines
*Patrons checking books out/not buying

ILUDED: Programming
*Free
*Convenient
*All ages
*25% increase in summer reading program
*Small branches programming increasing

Patronage Increase
*New Patrons
*Inactive patrons returning
*Active patrons increasing use